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PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION *US/10/052,545*

DATE: 02/13/2002
TIME: 21:09:06

INPUT SET: S36758.raw

> **This Raw Listing contains the General
> Information Section and up to the first 5 pages.**

SEQUENCE LISTING

```
 1
 2
 3     (1)     General Information:
 4
 5           (i) APPLICANT:
 6                 (A) NAME: Jarl Wikberg
 7                 (B) STREET: Trillvaegen 13
 8                 (C) CITY: Umea
 9                 (E) COUNTRY: Sweden
10                 (F) POSTAL CODE (ZIP): 905 92 Umea
11
12                 (A) NAME: Vijay Chhajlani
13                 (B) STREET: Stigbergsvaegen
14                 (C) CITY: Uppsala
15                 (E) COUNTRY: Sweden
16                 (F) POSTAL CODE (ZIP): 752 42 Uppsala
17
18       (ii) TITLE OF INVENTION: Human Melanocyte stimulating hormone receptor
19
20      (iii) NUMBER OF SEQUENCES: 20
21
22       (iv) CORRESPONDENCE ADDRESS:
23                 (A) ADDRESSEE: Sterne, Kessler, Goldstein & Fox
24                 (B) STREET: 1100 New York Ave., N.W.
25                 (C) CITY: Washington
26                 (D) STATE: D.C.
27                 (E) COUNTRY: USA
28                 (F) ZIP: 20005
29
30        (v) COMPUTER READABLE FORM:
31                 (A) MEDIUM TYPE: Floppy disk
32                 (B) COMPUTER: IBM PC compatible
33                 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
34                  (D) SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
35
36       (vi) CURRENT APPLICATION DATA:
37                 (A) APPLICATION NUMBER: 10/052,545
38                 (B) FILING DATE:
39                 (C) CLASSIFICATION:
40
41      (vii) PRIOR APPLICATION DATA:
42
43                 (A) APPLICATION NUMBER: 08/387,805
44                 (B) FILING DATE: 21-FEB-95
45
46
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PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION   US/10/052,545

DATE: 02 13 2002
TIME: 21:09:06

INPUT SET: S36758.raw

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47              (A) APPLICATION NUMBER: PCT/DK93/00273
48              (B) FILING DATE: 20-AUG-93
49
50          (vii) PRIOR APPLICATION DATA:
51              (A) APPLICATION NUMBER: DK 1046/92
52              (B) FILING DATE: 21-AUG-92
53
54          (vii) PRIOR APPLICATION DATA:
55              (A) APPLICATION NUMBER: DK 1118/92
56              (B) FILING DATE: 10-SEP-92
57
58          (vii) PRIOR APPLICATION DATA:
59              (A) APPLICATION NUMBER: DK 0528/93
60              (B) FILING DATE: 05-MAY-93
61
62         (viii) ATTORNEY/AGENT INFORMATION:
63              (A) NAME: Cimbala, Michele A.
64              (B) REGISTRATION NUMBER: 33,851
65              (C) REFERENCE/DOCKET NUMBER: 1102.0160000
66
67           (ix) TELECOMMUNICATION INFORMATION:
68              (A) TELEPHONE: (202)371-2600
69              (B) TELEFAX: (202) 371-2540
70
71   (2) INFORMATION FOR SEQ ID NO: 1:
72
73          (i) SEQUENCE CHARACTERISTICS:
74              (A) LENGTH: 1270 base pairs
75              (B) TYPE: nucleic acid
76              (C) STRANDEDNESS: double
77              (D) TOPOLOGY: linear
78
79          (ii) MOLECULE TYPE: DNA (cDNA)
80
81          (ix) FEATURE:
82              (A) NAME/KEY: CDS
83              (B) LOCATION: 169..1122
84
85          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
86
87   GGAGAGGGTG TGAGGGCAGA TCTGGGGGTG CCCAGATGGA AGGAGGCAGG CATGGGGGAC          60
88
89   ACCCAAGGCC CCCTGGCAGC ACCATGAACT AAGCAGGACA CCTGGAGGGG AAGAACTGTG         120
90
91   GGGACCTGGA GGCCTCCAAC GACTCCTTCC TGCTTCCTGG ACAGGACT ATG GCT GTG         177
92                                                        Met Ala Val
93                                                         1
94
95   CAG GGA TCC CAG AGA AGA CTT CTG GGC TCC CTC AAC TCC ACC CCC ACA         225
96   Gln Gly Ser Gln Arg Arg Leu Leu Gly Ser Leu Asn Ser Thr Pro Thr
97        5                  10                  15
98
99   GCC ATC CCC CAG CTG GGG CTG GCT GCC AAC CAG ACA GGA GCC CGG TGC         273
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INPUT SET: S36758.raw

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100   Ala Ile Pro Gln Leu Gly Leu Ala Ala Asn Gln Thr Gly Ala Arg Cys
101    20              25                  30                  35
102
103   CTG GAG GTG TCC ATC TCT GAC GGG CTC TTC CTC AGC CTG GGG CTG GTG    321
104   Leu Glu Val Ser Ile Ser Asp Gly Leu Phe Leu Ser Leu Gly Leu Val
105                   40                  45                  50
106
107   AGC TTG GTG GAG AAC GCG CTG GTG GTG GCC ACC ATC GCC AAG AAC CGG    369
108   Ser Leu Val Glu Asn Ala Leu Val Val Ala Thr Ile Ala Lys Asn Arg
109               55                  60                  65
110
111   AAC CTG CAC TCA CCC ATG TAC TGC TTC ATC TGC TGC CTG GCC TTG TCG    417
112   Asn Leu His Ser Pro Met Tyr Cys Phe Ile Cys Cys Leu Ala Leu Ser
113           70                  75                  80
114
115   GAC CTG CTG GTG AGC GGG AGC AAC GTG CTG GAG ACG GCC GTC ATC CTC    465
116   Asp Leu Leu Val Ser Gly Ser Asn Val Leu Glu Thr Ala Val Ile Leu
117       85                  90                  95
118
119   CTG CTG GAG GCC GGT GCA CTG GTG GCC CGG GCT GCG GTG CTG CAG CAG    513
120   Leu Leu Glu Ala Gly Ala Leu Val Ala Arg Ala Ala Val Leu Gln Gln
121   100                 105                 110                 115
122
123   CTG GAC AAT GTC ATT GAC GTG ATC ACC TGC AGC TCC ATG CTG TCC AGC    561
124   Leu Asp Asn Val Ile Asp Val Ile Thr Cys Ser Ser Met Leu Ser Ser
125                   120                 125                 130
126
127   CTC TGC TTC CTG GGC GCC ATC GCC GTG GAC CGC TAC ATC TCC ATC TTC    609
128   Leu Cys Phe Leu Gly Ala Ile Ala Val Asp Arg Tyr Ile Ser Ile Phe
129               135                 140                 145
130
131   TAC GCA CTG CGC TAC CAC AGC ATC GTG ACC CTG CCG CGG GCG CGG CGA    657
132   Tyr Ala Leu Arg Tyr His Ser Ile Val Thr Leu Pro Arg Ala Arg Arg
133           150                 155                 160
134
135   CGC GTT GCG GCC ATC TGG GTG GCC AGT GTC GTC TTC AGC ACG CTC TTC    705
136   Arg Val Ala Ala Ile Trp Val Ala Ser Val Val Phe Ser Thr Leu Phe
137       165                 170                 175
138
139   ATC GCC TAC TAC GAC CAC GTG GCC GTC CTG CTG TGC CTC GTG GTC TTC    753
140   Ile Ala Tyr Tyr Asp His Val Ala Val Leu Leu Cys Leu Val Val Phe
141   180                 185                 190                 195
142
143   TTC CTG GCT ATG CTG GTG CTC ATG GCC GTG CTG TAC GTC CAC ATG CTG    801
144   Phe Leu Ala Met Leu Val Leu Met Ala Val Leu Tyr Val His Met Leu
145                   200                 205                 210
146
147   GCC CGG GCC TGC CAG CAC GCC CAG GGC ATC GCC CGG CTC CAC AAG AGG    849
148   Ala Arg Ala Cys Gln His Ala Gln Gly Ile Ala Arg Leu His Lys Arg
149               215                 220                 225
150
151   CAG CGC CCG GTC CAC CAG GGC TTT GGC CTT AAA GGC GCT GTC ACC CTC    897
152   Gln Arg Pro Val His Gln Gly Phe Gly Leu Lys Gly Ala Val Thr Leu
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INPUT SET: S36758.raw

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153           230                  235                 240
154
155  ACC ATC CTG CTG GGC ATT TTC TTC CTC TGC TGG GGC CCC TTC TTC CTG      945
156  Thr Ile Leu Leu Gly Ile Phe Phe Leu Cys Trp Gly Pro Phe Phe Leu
157         245                  250                 255
158
159  CAT CTC ACA CTC ATC GTC CTC TGC CCC GAG CAC CCC ACG TGC GGC TGC      993
160  His Leu Thr Leu Ile Val Leu Cys Pro Glu His Pro Thr Cys Gly Cys
161  260                  265                 270                 275
162
163  ATC TTC AAG AAC TTC AAC CTC TTT CTC GCC CTC ATC ATC TGC AAT GCC      1041
164  Ile Phe Lys Asn Phe Asn Leu Phe Leu Ala Leu Ile Ile Cys Asn Ala
165                  280                  285                 290
166
167  ATC ATC GAC CCC CTC ATC TAC GCC TTC CAC AGC CAG GAG CTC CGC AGG      1089
168  Ile Ile Asp Pro Leu Ile Tyr Ala Phe His Ser Gln Glu Leu Arg Arg
169                  295                  300                 305
170
171  ACG CTC AAG GAG GTG CTG ACA TGC TCC TGG TGAGCGCGGT GCACGCGCTT      1139
172  Thr Leu Lys Glu Val Leu Thr Cys Ser Trp
173         310                  315
174
175  TAAGTGTGCT GGGCAGAGGG AGGTGGTGAT ATTGTGTGGT CTGGTTCCTG TGTGACCCTG      1199
176
177  GGCAGTTCCT TACCTCCCTG GTCCCCGTTT GTCAAAGAGG ATGGACTAAA TGATCTCTGA      1259
178                                                                        1270
179  AAGTGTTGAA G
180
181
182  (2) INFORMATION FOR SEQ ID NO: 2:
183
184          (i) SEQUENCE CHARACTERISTICS:
185              (A) LENGTH: 317 amino acids
186              (B) TYPE: amino acid
187              (D) TOPOLOGY: linear
188
189      (ii) MOLECULE TYPE: polypeptide
190
191      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
192
193  Met Ala Val Gln Gly Ser Gln Arg Arg Leu Leu Gly Ser Leu Asn Ser
194   1                  5                  10                 15
195
196  Thr Pro Thr Ala Ile Pro Gln Leu Gly Leu Ala Ala Asn Gln Thr Gly
197                  20                  25                 30
198
199  Ala Arg Cys Leu Glu Val Ser Ile Ser Asp Gly Leu Phe Leu Ser Leu
200                  35                  40                 45
201
202  Gly Leu Val Ser Leu Val Glu Asn Ala Leu Val Val Ala Thr Ile Ala
203         50                  55                 60
204
205  Lys Asn Arg Asn Leu His Ser Pro Met Tyr Cys Phe Ile Cys Cys Leu
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INPUT SET: S36758.raw

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206        65                           70                    75                    80
207
208    Ala Leu Ser Asp Leu Leu Val Ser Gly Ser Asn Val Leu Glu Thr Ala
209                    85                    90                        95
210
211    Val Ile Leu Leu Leu Glu Ala Gly Ala Leu Val Ala Arg Ala Ala Val
212                100                    105                   110
213
214    Leu Gln Gln Leu Asp Asn Val Ile Asp Val Ile Thr Cys Ser Ser Met
215            115                    120                   125
216
217    Leu Ser Ser Leu Cys Phe Leu Gly Ala Ile Ala Val Asp Arg Tyr Ile
218        130                    135                   140
219
220    Ser Ile Phe Tyr Ala Leu Arg Tyr His Ser Ile Val Thr Leu Pro Arg
221    145                    150                   155                   160
222
223    Ala Arg Arg Arg Val Ala Ala Ile Trp Val Ala Ser Val Val Phe Ser
224                    165                   170                   175
225
226    Thr Leu Phe Ile Ala Tyr Tyr Asp His Val Ala Val Leu Leu Cys Leu
227                180                    185                   190
228
229    Val Val Phe Phe Leu Ala Met Leu Val Leu Met Ala Val Leu Tyr Val
230                195                    200                   205
231
232    His Met Leu Ala Arg Ala Cys Gln His Ala Gln Gly Ile Ala Arg Leu
233        210                    215                   220
234
235    His Lys Arg Gln Arg Pro Val His Gln Gly Phe Gly Leu Lys Gly Ala
236    225                    230                   235                   240
237
238    Val Thr Leu Thr Ile Leu Leu Gly Ile Phe Phe Leu Cys Trp Gly Pro
239                    245                   250                   255
240
241    Phe Phe Leu His Leu Thr Leu Ile Val Leu Cys Pro Glu His Pro Thr
242                260                    265                   270
243
244    Cys Gly Cys Ile Phe Lys Asn Phe Asn Leu Phe Leu Ala Leu Ile Ile
245                275                    280                   285
246
247    Cys Asn Ala Ile Ile Asp Pro Leu Ile Tyr Ala Phe His Ser Gln Glu
248        290                    295                   300
249
250    Leu Arg Arg Thr Leu Lys Glu Val Leu Thr Cys Ser Trp
251    305                    310                   315
252
253
254    (2) INFORMATION FOR SEQ ID NO: 3:
255
256        (i) SEQUENCE CHARACTERISTICS:
257            (A) LENGTH: 33 base pairs
258            (B) TYPE: nucleic acid
```

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION   *US/10/052,545*

INPUT SET: S36758.raw

Line	Error		Original Text
			(i) APPLICANT:
5	Mandatory Value Not Present		(A) NAME: Jarl Wikberg
6	Unknown or Misplaced Identifier		(B) STREET: Trillvaegen 13
7	Unknown or Misplaced Identifier		(C) CITY: Umea
8	Unknown or Misplaced Identifier		(E) COUNTRY: Sweden
9	Unknown or Misplaced Identifier		(F) POSTAL CODE (ZIP): 905 92 Umea
10	Unknown or Misplaced Identifier		(A) NAME: Vijay Chhajlani
12	Unknown or Misplaced Identifier		(B) STREET: Stigbergsvaegen
13	Unknown or Misplaced Identifier		(C) CITY: Uppsala
14	Unknown or Misplaced Identifier		(E) COUNTRY: Sweden
15	Unknown or Misplaced Identifier		(F) POSTAL CODE (ZIP): 752 42 Uppsala
16	Unknown or Misplaced Identifier		

SEQUENCE MISSING ITEM REPORT
PATENT APPLICATION   US/10/052,545

INPUT SET: S36758.raw

< < THERE ARE NO ITEMS MISSING > >

SEQUENCE CORRECTION REPORT
PATENT APPLICATION   *US/10/052,545*

INPUT SET: S36758.raw

Line	Original Text	Corrected Text
834	(xi) SEQUENCE DESCRIPTION: SEQ ID NO 17:	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17: